

## Commander's Call

*On March 30th, Lieutenant General John Norton, commanding general of Combat Developments Command (CDC), held a Commander's Call for both military and civilian personnel of CDC Headquarters at Ft. Belvoir, Va. One portion of the general's speech concerned what he believes are the three major challenges presently facing each and every person within CDC. The following is the excerpt:*

There are some challenges that face each and everyone of us.

I said that we weren't going to have any serious reduction because of reorganization. I still mean that. But if all of the budget guidance I get for fiscal years 71, 72, and 73 tells me anything, it tells me that the trend is towards having less people for the command as a whole, and less money to do our entire mission. I don't know how the budget is going to come out, but the critical days are probably in the next few months ahead, as far as the fiscal year is concerned.

We should also be prepared to see some further personnel reductions. I think that we had 50 field grade officers knocked out of our Table of Distribution for the last

quarter of this fiscal year and another 70 knocked out of the Table of Distribution for the first quarter of fiscal year 72.

Now about the substantive content of our work. Of course, I mean we have to do it right, be good on administration, know the procedures. But there is a bigger challenge to the people who are answering the gut questions about where the Army is going—or trying to answer the tough questions on what equipment is best—or what combination of organization doctrine is best—or what do the test results and war games really show? I urge each and everyone of you to make sure you are dealing in substance—to get some facts. Ask those tough burning questions about why. Knowing the administration and procedure elements is fine, but unless you get into the nitty gritty substance of our business, you are really missing the boat, and I have to impress this on everybody, everyday.

In communications, I am concerned about the paperwork—too much procedure—



too much administrative folderol. Some people write better than others, of course, but what I would really like to encourage you to do is to try and get it said on one piece of paper, two at the most with enclosures if you need them. But to be clear and to be concise and to be compelling in your written work is a great asset in any organization.

So if you can take those three challenges away from here today, I would consider this meeting well worthwhile.



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FLARE

# ARROWHEAD

COMBAT DEVELOPMENTS COMMAND

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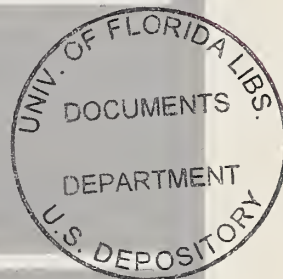
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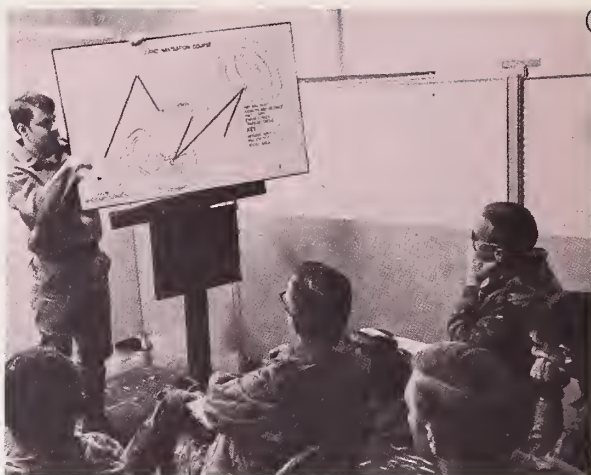
**ABOUT THE COVER:** Depicted on the front cover is a procession of past ARROWHEAD magazines, from the first publication in August 1968 to the March 1971 edition. ARROWHEAD's short history has encompassed slow but gradual changes in appearance and content. Beginning with this issue, the ARROWHEAD is taking a big step toward improving its product. A 32-page layout (excluding covers) with a glossy cover, larger print, and a mix of color combinations are some of the features implemented to enhance the magazine. The ARROWHEAD will also be seeking to supply more reader appeal in its articles.

On the back cover, Skytroopers of the 1st Air Cavalry Division cross a jungle stream in Vietnam. This month that famous fighting outfit becomes the TRI-CAP Division at Ft. Hood, Tex.

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Five men of a six-man Small Independent Action Force (SIAF) move out (below) through the rugged terrain of the Los Padres Mountains in central California during the tests. Two members of one of the teams—Sergeant First Class Charlie White and Captain Paul Cullinane, Jr. (opposite page)—discuss information before heading out. Prior to running the navigation course as part of the training these soldiers received during the project, First Lieutenant James Van Dam explains the course (right).



Wilson







Wilson

# **Small Infantry Units Undergo “Mathematical” Field Testing**

**by SSG Al Wilson**

## **CDC's Experimentation Command Conducts A Scientific Analysis Of Small Unit Operations To Support A Small Independent Action Force Model**

General William C. Westmoreland once spoke of the “quiet revolution” in ground warfare. Today more than ever that revolution is evident—and the Special Forces soldier is part of the changing Army.

The revolution the Army Chief of Staff referred to is not the flag-burning, marching, protesting variety. Instead, it is an Army becoming as modern as it is mighty and as scientific as it is mobile.

One of the reasons for this revolution is the Advanced Research Projects Agency (ARPA) of the Department of Defense. This agency requested that the Army's “field laboratory,” the Combat Developments Command Experimentation Command (CDCEC), conduct a series of tests to verify selected aspects of small unit operations.

These tests, which were held from January 26–May 1, were conducted by CDCEC in conjunction with the Vertex Corporation at the Hunter Liggett Test Reservation at Ft. Ord, Calif.

There, a rotating number of the Army's Special Forces, the Navy's SEAL (Sea, Air, and Land) teams, and the Marine's Stingray patrols took part in a project to keep Army “in” with today and prepared for tomorrow. Special Forces units were selected from the John F. Kennedy Center for Military Assistance at Ft. Bragg, N.C.

The test effort was intended to provide operational verification under controlled conditions of selected parameters in the Small Independent Action Force (SIAF) model. The verification procedure will be accomplished jointly by the Vertex Corp. and TRW Inc. designs of the model.

The SIAF program was directed towards the investigation and feasibility demonstration

**Captain Alfred A. Bennett uses a panel (below) to signal his location for a helicopter extraction following his team's completion of one phase of a reconnaissance patrol. When the helicopter comes (right) soldiers rush to board it through the blast of air created by the chopper's blades.**

Wilson



Wilson

of units operations through the application of advanced improvements in the systems analysis techniques to small autonomous military units.

The analytical model under development by TRW Inc. is designed to provide a tool for the examination of the impact of changes in personnel, equipment, and operating procedure on SIAF unit effectiveness. Continued development of this model is planned by CDC.

The chief scientist and manager for the test, James Cronander of the Vertex Corp., described the project: "Our aim was to verify a mathematical model of small infantry actions. TRW has developed a model that describes what takes place in the course of a SIAF patrol."

He added, "Data used to formulate this computerized action force was gathered from thousands of debriefings of varied-type patrols in Vietnam as well as a test conducted in Hawaii last year."

Ten six-man teams from the 6th and 7th Special Forces Groups in conjunction with five each from the Navy and the Marines provided the human element. During the test each service retained its normal tactics and equipment.

Prior to the test the Green Beret teams received specially designed training from B Detachment, Company C, 7th Special Forces

Group, in support of the project. The seven-man detachment was headed by Major Claude Matchett. The men received extensive training in land navigation and a four-day field training exercise which included a phase of "find your food or go hungry."

The pre-test training continued with seven days of human factor testing, instruction on the Laser Target Designator (LTD) and the Patrol Locator System (PLS), coupled with more land navigation and target detection. This training was conducted by CDCEC.

The aforementioned LTD is a device designed to pinpoint a target for air strikes or artillery. The user "fires" the device at the target, sending a narrow beam of invisible (to the naked eye) light. A missile or bomb is then released in the general area of the target. It locks in on the light beam, thus destroying the object with devastating accuracy.

The PLS is a system designed to keep track of the patrol members as they go through the instrumented "battlefield." A small transmitter worn by members of the patrol sends back signals to a receiver at control headquarters.

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**SSG Al Wilson is assigned with the Office of Information, John F. Kennedy Center for Military Assistance, Ft. Bragg, N.C.**



# Why Is the Combat Developments Process Considered A Mystery?

What is the combat developments process?

Is it some mysterious action that delivers full-blown concepts and programs to the Army in the field just like castings from an assembly line press?

Or is it the secret workings of a few knowledgeable people who alone have found the keys to the kingdom?

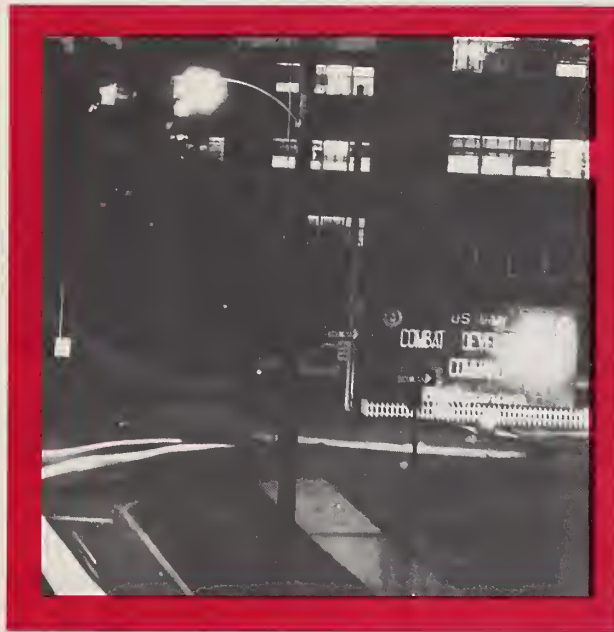
Who really has a handle on this crucial question? And it is crucial, because everyone in the command should be totally aware of the combat developments process and the products of that process.

One of the best commentaries on the elusiveness of the answer is the story of an officer in the headquarters. Given the task of writing a speech for the Commanding General, part of which included some definition of the combat developments process, he ruefully reported that he spent nearly a week of research and found that every source he approached had a different answer.

Moreover, most were strongly materiel oriented.

So the writer and General Norton sat down one Saturday and, after a dozen or so sheets of butcher paper, hammered out a graphic design of a CD process.

General Norton premiered the pitch in a speech at the Armed Forces Staff College and,



McQuiston

finding that it clicked, decided to use it as a standard briefing item in the headquarters.

Although oversimplified, it nevertheless states the case with clarity.

Illustrated at Figure 1, is a graphic portrayal of the CD process. What this says is that we must first look at our current capabilities, weighing those with the assessment of the threat, and the potential of new technology.

For example, say we are examining all methods of defeating enemy armor. One of the new concepts to evolve from an analysis of the threat-technology-capabilities input is the use of an attack helicopter armed with an anti-tank missile.

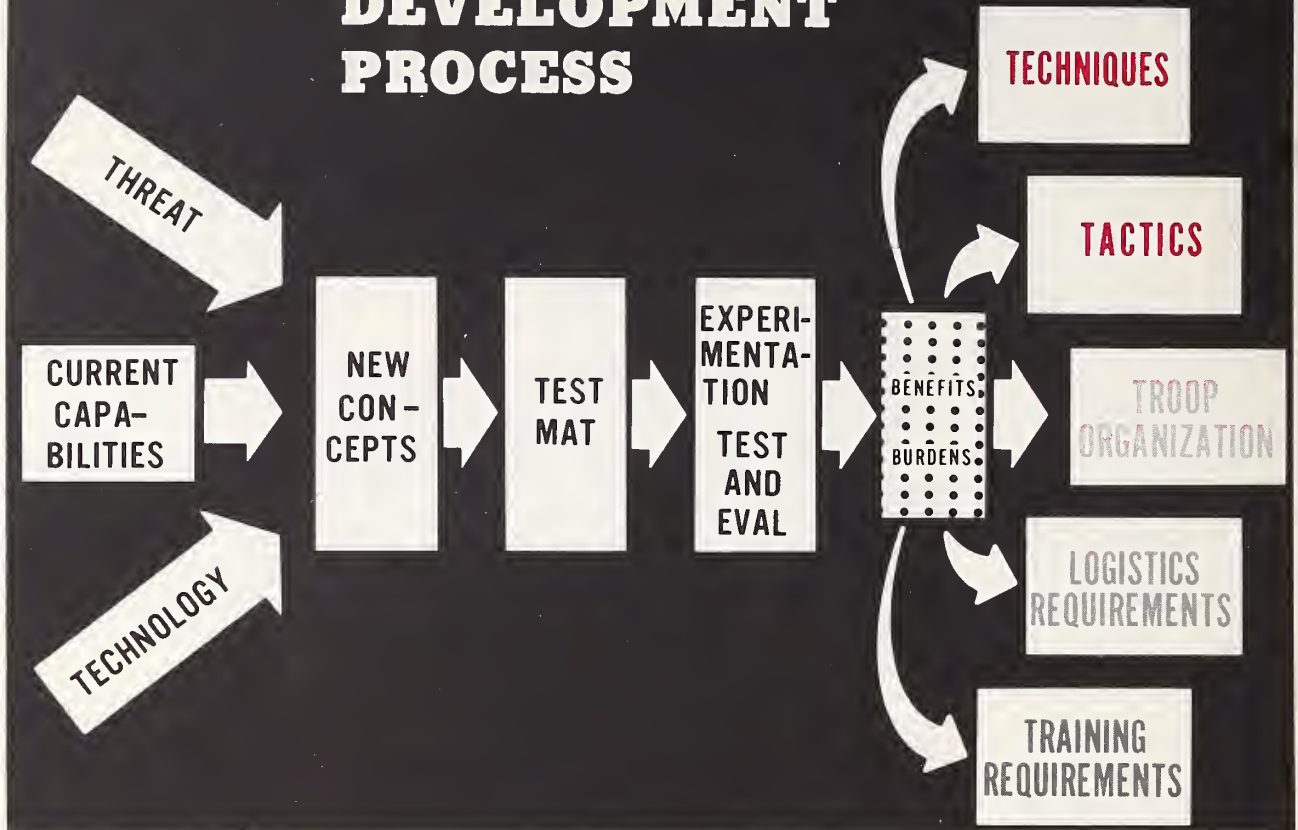
It is usually at this point that our partners in this business—either the Army's Materiel Command or the Research and Development community—begin to get involved. It is from these sources that we obtain the items of materiel for test and evaluation.

The first tests and evaluations are usually to see if the machine will work at all, while the later tests are more complex. These tests—instrumented field tests or full field tests—are designed to yield data that will help answer the benefits-versus-burdens questions.

There always is a tendency to become too enamored with gadgetry. And this is one of

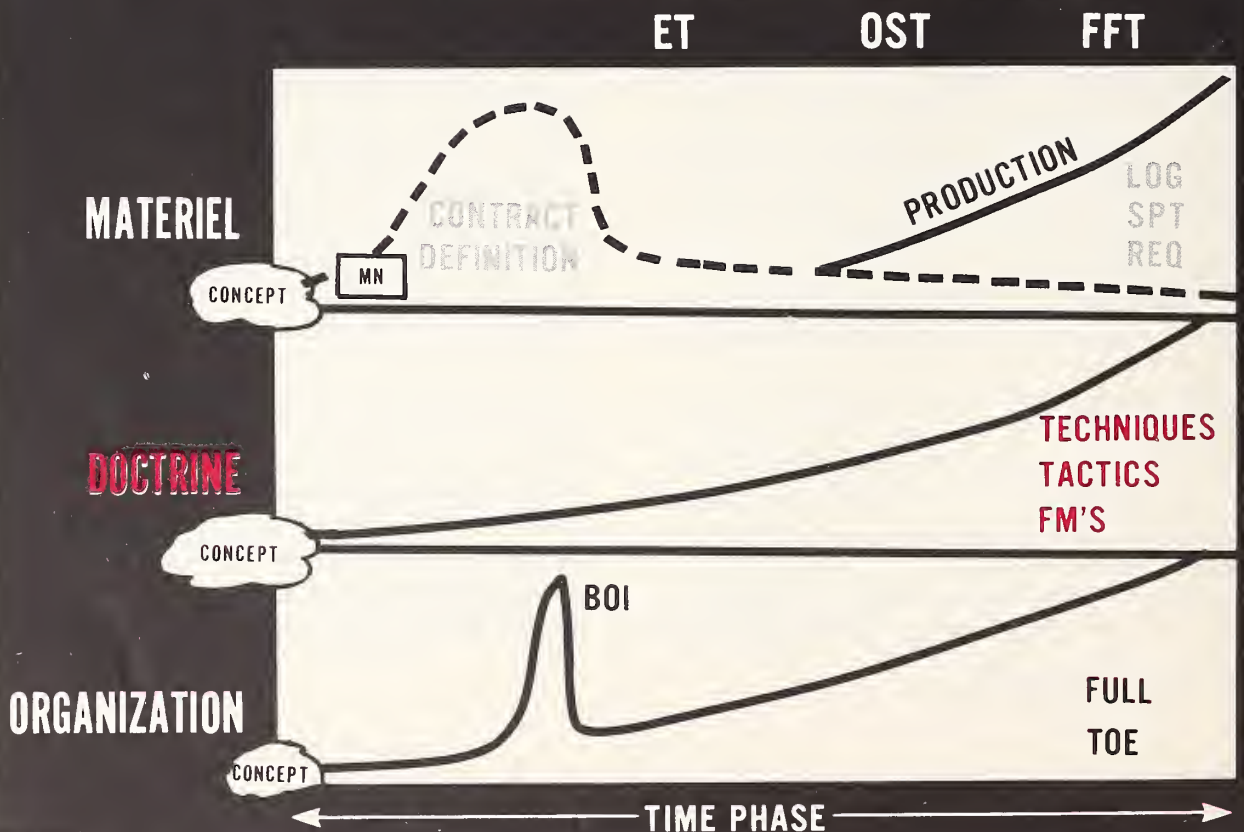
# COMBAT DEVELOPMENT PROCESS

I



# COMBAT DEVELOPMENT WORKLOAD PROFILE

II





# One Key Is to Insure That We Don't Become Proliferated With Every Piece of Hardware

the key jobs that CDC has—to insure that the Army does not become proliferated with every jazzy piece of hardware that comes down the pike.

The final products of the process are the doctrinal product—techniques of operation; the tactics of employment—the organization design, logistical requirements; and finally, a synthesis of doctrine, organization and materiel—training requirements.

Now to put this in perspective, let's look at the process in a time-phase sequence. Figure 2 illustrates how a concept is not limited to any single developmental stovepipe. Again, considering the concept of using attack helicopters to kill tanks, the concept probably was strongest at the outset on the doctrine side of the house, although materiel obviously could not lag too far behind. In organization, the concept was probably little more than a fuzzy outline in the beginning. But the real point being made here is that any idea for a better way to accomplish a mission, regardless of origin, will cause simultaneous initiation of action in all three major developmental areas.

The first burst of activity is when materiel oriented agencies initiate action to formalize the hardware requirements of the conceptual design into a Materiel Need document and develop a contract definition for prototype productions.

Meanwhile, during this process, the agencies responsible for authorization documents begin determining the number of items that probably will be required by the Army—the basis of issue (BOI).

In doctrine, as the entire process moves toward the engineering tests, work is underway to develop training texts.

The engineering tests (ET) are conducted to determine the prototype's capability to satisfy

stated technical requirements. Once satisfied, additional procurement is authorized. It should be stressed that while CDC does not itself conduct these tests, it does maintain an active liaison with AMC, which has primary testing responsibility.

The pre-production models then are subjected to further testing, the data from which is used in the decision process to determine the desirability of full production.

The final product of the materiel side of the house is stated requirements of logistical support for the item of equipment.

Doctrinal agencies work continually to expand concepts, gaining valuable input from the various tests along the way, so that definitive guidance in the form of military publications on tactics and techniques can be issued to the field concurrently with the issue of equipment.

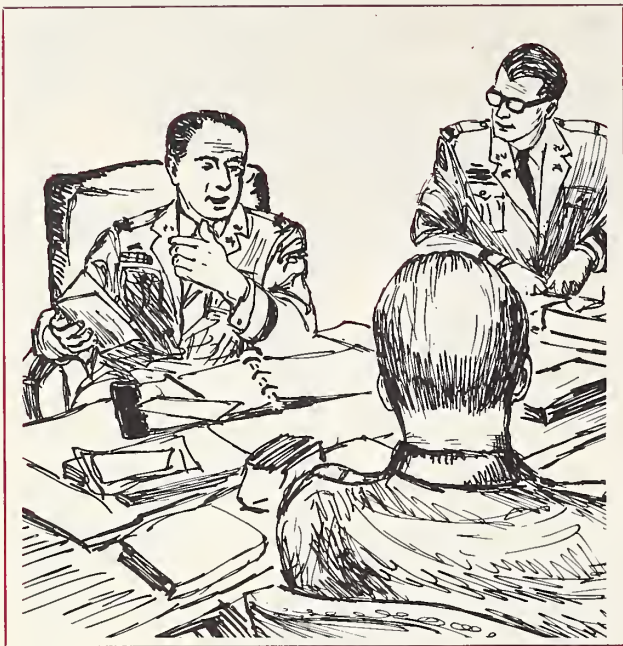
In organization, following the BOI burst, work will proceed steadily toward development of the full tables of organization and equipment.

Again, this chart is an over-simplification. For example, test and evaluation is shown only in terms of the actual tests. But, in reality, all CDC agencies get involved in test and evaluation either directly by, for example, writing test directives; or indirectly, by plugging the results of field evaluations into associated studies or programs.

This then, has been a quick overview of the combat developments process.

The results of that process are the products of CDC—to answer the questions on how the Army will fight, equip, and organize—and the general answers CDC provides.

It's a big job and one that requires full participation by every member of the developments team. □



# Spring Training For the Modern Volunteer Army

## CDC's Junior Officer Council Tackles the Big Issues Facing the Army Today

Talent is one of the most important ingredients for making a winning professional ball team. Coaches must carefully blend talent with motivation, an opportunity for achievement, and individual responsibilities in accordance with the team's "game plan."

A group of sincere young officers assigned to Combat Developments Command (CDC) feel the Army's "game plan" for building a modern Army should include the same basic ingredients. This group of young officers are banded together under the auspices of CDC's Junior Officer Council (JOC) which "raps" with the top in a two-way channel of communication with CDC's Commanding General, Lieutenant General John Norton.

"This exchange of ideas is neither a crying towel nor the ultimate solution to the problems of the universe," said First Lieutenant Bryan K. Olson, President of the Council. "We don't bring up little problems such as what to do with a stop sign at the corner, but try to solve these problems with a simple telephone call to the responsible party." He continued, "We feel our ideas should reflect on the big issues facing 'Professionalism in the Army' or 'Drug Addiction as a social problem in the Army.'"

1stLt. Olson points out that the CDC Junior Officers Council was on the ground floor when Lieutenant General George Forsythe, former Commanding General of CDC, assumed command of the Volunteer Army Project last October and a committee for CDC's Council presented LtGen. Forsythe a proposed Channel of Communications System for the Modern Volunteer Army.

The committee proposed that the troops in the field and DA planners communicate with each other on an eye-to-eye basis. They concluded that a sergeant could talk with another sergeant and explain how some of the "burrs under the blanket" could be removed. This peer-to-peer concept would produce more empathy between groups and open communication gaps that otherwise would remain closed.

The JOC also suggested a unique management approach where the head of an Army unit tries to release thinking while encouraging ideas to flow from the bottom up. In this way, the entire organization could accept the re-

**continued on page 29**



# WAR DOG

by SGM Richard Hines

"Canis Canem. Bestis in  
Rebus. In the war field  
this inscription was found  
on a mosaic depicting a chained  
dog in front of an ancient  
Roman dwelling. How long  
has dog been man's best friend  
or, inversely, how long has  
man been dog's best friend?"

Domesticated dog makes his  
first appearance during the  
Neolithic period of civilization  
(late Stone Age) along with  
the invention of the wheel and  
the bow. The Bible has thir-  
teen references to dogs.  
Aesop told the story of the  
dog that could not eat the hay  
in a manger, but growled at  
the horse anyway. When  
Ulysses returned from his  
wanderings after the Trojan  
War, only his faithful dog  
recognized him.

Military efforts of nations  
long have included the services  
of the military dog. Combat De-  
velopments Command (CDC)  
is no exception and considers  
the role of the military dog  
a significant contribution  
toward a modern Army.  
CDC's Military Police Agency  
at Ft. Gordon, Ga., has the  
mission of monitoring doctrine  
pertaining to the use of dogs  
in a variety of unique tasks.





When did man first realize the importance of a dog in a military role? History tells us that in 1544 Henry VIII sent 400 dogs with good iron collars to the assistance of Charles V of Spain in his war against France. Napoleon in 1798, during his military campaign in Egypt, suggested that dogs be used to guard the walls, warn of approaching intruders and if attacked, form the first line of resistance. Russia used ambulance dogs during the Russo-Japanese War. The British used dogs on the Abor Expedition in the Himalayas.

The Germans, French and Belgians used these animals in

large quantities during World War I. During this war it was estimated that the German Army used more than 25,000 dogs for messenger and ambulance service. The American Expeditionary forces considered using dogs in the Spring of 1918 but the project failed to materialize. It was not until World War II that the military dog was adopted by the United States Army.

At the time of Pearl Harbor, the Army had about 50 sled dogs in Alaska where they were used when snow and ice prevented the use of horses or motor vehicles. When the first shock of Pearl Harbor subsided many Americans felt

a danger from without never experienced before except, perhaps, during the Revolutionary War. In 1942 after German submarines were sighted in large numbers on the Atlantic and Gulf Coasts and the possibility of landings by saboteurs and enemy aliens became a grim reality, the War Department began to take a long hard look at the military dog.

The initiative however, came from a patriotic group of dog owners who formed an organization called Dogs for Defense. As America tooled-up for the industrial effort to fight a global war, more and more defense plants sprang up across the United States. Dogs for Defense urged that dogs be used to help protect these vital defense installations and guard our shores. Finally in March of 1942, the Secretary of War gave permission to the Quartermaster General, Major General Edmund B. Gregory, to accept donations of guard dogs from the American Kennel Club and Dogs for Defense.

The program was experimental in the beginning as the Army's only experience was with sled dogs in Alaska. The program unofficially became known as the K-9 Corps because of the phonetic relationship with the family word



## **The Role of the Military Dog Has Kept Pace Throughout History With Changes in Warfare**



for Dog, Canine. More than 30 breeds of dogs were considered suitable for military service. Dogs of both sexes with an age range from one to five years initially were accepted. Soon, however, the adage, "You can't teach an old dog new tricks," caught up with the program and the maximum age was reduced to two years. Suitable breeds were also reduced to seven: German Shepherds, Belgian Sheep Dogs, Doberman-Pinschers, farm Collies, Siberian Huskies, Melemutes, and Eskimo Dogs.

Training centers for military dogs were established at Front Royal, Va., Fort Robinson, Neb., Camp Rimini, Mont., San Carlos, Calif., and Cat Island, near Gulfport, Miss. Training sites were selected for the type of training the dogs were to receive. Camp Rimini was located in an area where snow lay on the ground for many months and it was used exclusively for the training of sled and pack dogs. In contrast, Cat Island was selected for its semi-tropical climate and dense vegetation where dogs were trained for use in jungle warfare.

The military dog of World War II was trained for a variety of missions. Five main types were sentry, sled, mes-



**The sentry dog and the scout dog have been invaluable aids to the fighting soldier. Sentry dogs (above, left and right) must undergo rigorous training. Scout dogs have been used effectively in Vietnam to search out Viet Cong hidden underground (top) and snipers holed up in Vietnamese towns (opposite page).**

senger, mine detector and scout dogs. Of 10,425 dogs trained, however, nearly 9,000 were sentry dogs. The British, in a "lend-leash" move, provided the services of Captain John B. Garle who was the Director of their War Dog Training School to assist in developing doctrine for a tactical dog program.

While attempts were made to standardize training, results depended largely on the dog and his trainer's ability. Dogs spent their first month in basic training where they were taught fundamentals and classified for specialized service. Dogs selected for spe-

cialized training were chosen on the basis of aptitude and abilities. Sentry dogs worked chiefly on a leash and required less instruction. Attack dogs were included in the category of sentry dogs but they were also taught to work off leash and attack on command or provocation. These animals had to possess a high degree of intelligence, willingness and aggressiveness. Also they had to be strong, courageous, and heavy enough to throw a man to the ground. The Scout dog was considered an exceptionally well-trained animal with acute hearing, highly developed sensitive

powers, and ability to detect motion.

The official record of one Scout dog named Wolf reads like a chapter out of the account of a Medal of Honor winner in any war.

WOLF, Brand Number T121.

WOLF was committed to combat with the 27th Infantry battalion through the Carabella Mountain in Northern Luzon toward the strategic Balete Pass. While leading an Infantry Patrol he scented the presence of the enemy entrenched on a hillside about 150 yards distant in time to allow the members of the patrol to take favorable cover and resist the attack that was imminent. During the ensuing fire-fight, WOLF received shrapnel wounds. Showing no sign of pain and determined at all costs to remain silent, his wound was not detected by surrounding personnel. Greatly outnumbered and partly encircled by the enemy, the patrol decided to withdraw to insure the delivery to Headquarters of the vital information they had gained. WOLF, on the point of the patrol, succeeded on three different occasions in alerting the patrol, enabling them to by-pass the enemy and return to their camp with a single casualty. In spite of expert medical care and an emergency operation, the 25th Division's casualty list included among others—  
WOLF, US Army War Dog, T121,  
Died of Wounds—  
Wounded in Action . . .



**The military dog in Vietnam has been used as a scout, sentry, tunnel and tracking dog, sharing with soldiers the experiences and hardships of battle. The German Shepherd (above), according to military dog experts, is the most reliable of the military dog breeds.**

Following the close of World War II, the War Department authorized scout dog platoons in the postwar military establishment. The Army had



acknowledged that dogs were of sufficient tactical value to justify their inclusion among regular peacetime units. The World War II method of obtaining dogs on a loan basis from patriotic citizens was discontinued. It was decided that dogs would be purchased and become the sole property of the Government. From the end of World War II and the Korean conflict little was accomplished relative to dog training.

Military dogs were used during the Post Korean War years as sentry or guard dogs for warehouses and supply depots around the world. During the early stages of the Vietnam conflict, our military efforts were frustrated by an elusive enemy who faded into his jungle sanctuary whenever the pressure of battle forced him to withdraw.

Armed with methodology spanning almost 30 years, combat developers looked at new and sophisticated roles for the military dog in Southeast Asia. CDC sent a requirement to the field for experimentation with dogs to see if an improved detector dog could be developed. Almost immediately this dog was labeled "Super Dog." The proposal provided guidelines to acquire an improved dog through the use of selected breeding and

ancillary equipment designed to enhance the dog's detection capability. It already was established that an alert dog can detect an enemy 1,000 meters away using only his natural senses.

According to military dog experts, the German Shepherd is most reliable for a number of missions and roles. The German Shepherd, however, suffers from hip dysplasia (disjointed hips) that sometimes gets so bad that the animal is unable to walk. Currently, a new strain of German Shepherds is being developed through cross-breeding that should eliminate some of this problem. The German Shepherd is used in Vietnam as scout, sentry and tunnel dogs.

The North Vietnamese and the Viet Cong use underground tunnels, spider holes and cache storage pits to conceal themselves along with their supplies. "Charlie" (the enemy) didn't reckon with a slick 95-pound tunnel dog that just loves to hunt him and his supplies. A good tunnel dog is capable of searching five acres per hour, operating within sight of the handler and remaining under control at all times.

Another dog that has received much notoriety is the Marijuana dog. Here is a case

where some folks may have second thoughts about "man's best friend"—especially if a shaggy German Shepherd with a special knack for smelling the stuff becomes directly responsible for their arrest. The marijuana dog was first developed by a Florida Police Department but the Army picked up the program to use these dogs to meet a requirement for thorough customs and postal inspections.

The CDC Military Police Agency is continuing to look at different roles for the military dog in law enforcement duties. One unit in Vietnam currently is testing a new doctrine in the employment of a Patrol dog. The patrol dog works with a military policeman and is completely controlled by voice command alone. Sentry dogs have to be physically restrained by the handler once an attack begins.

Last year was the year of the dog in the Chinese zodiacal system. But as long as Sirius, the dog star, figures in the constellation Canis Major (larger dog), the military dog will remain by the side of his military handler. They know . . . they have served together in combat sharing the hardships and the glory of success on the battlefield. □









## TRI-CAP Division: The Army's New Triple Threat

The renowned 1st Cavalry Division, reorganized twice in its 50-year history, soon will add another "first" to its remarkable record. Shedding its Air Cavalry title which made it famous in Vietnam, the 1st Cavalry will be the standard bearer for the experimental TRI-CAP organizational concept.

The division was chosen for this mission because of the need to carry on the close identification of forward-looking air cavalry/airmobile concepts with the esprit and traditions of the "First Team."

When the 1st Cavalry colors return from Vietnam and replace those of the 1st Armored Division, the Army will, for the first time, have a divisional organization that has more than one predominate capability.

The division consists of three major maneuver elements — armor-mechanized, airmobile infantry, and air cavalry combat brigades — plus a division base. Figure 1 shows the divisional organization as it was developed by Combat Developments Command.

The mobility and shock action of the tank is, of course, well known; and the ability of airmobile infantry has been proven thoroughly

**by COL. Selby F. Little, Jr.**

FIGURE 1

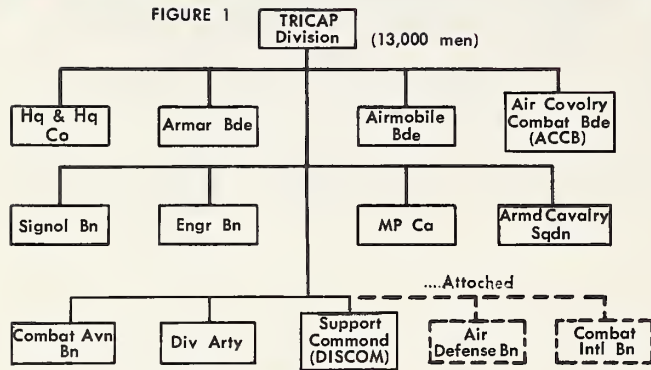


FIGURE 3

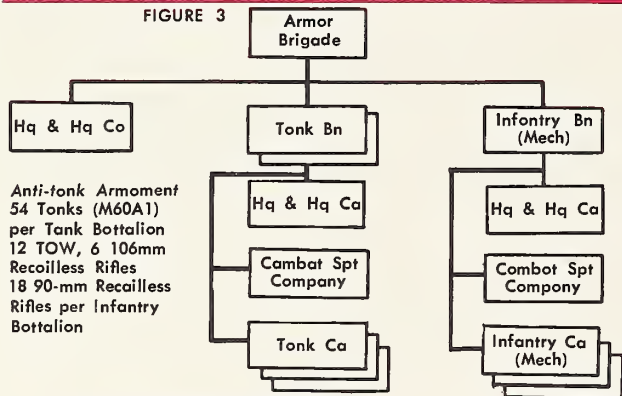
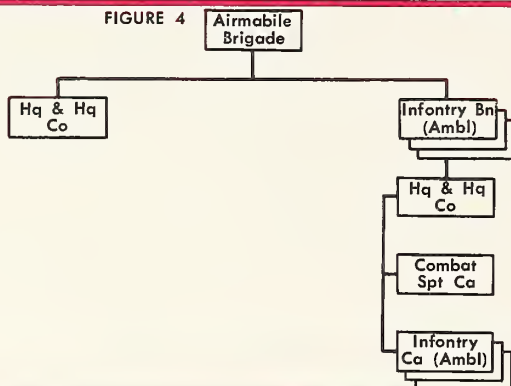


FIGURE 4



in more than five years of combat in Vietnam. So it is the addition of the third element, the Air Cavalry Combat Brigade (ACCB), that provides this division with the genesis of its name—Triple Capability.

The ACCB is built around the potential of the new attack helicopter with its day/night tank-killing capability. The combat potential of a 150-knot anti-tank helicopter unit operating in concert with armor and airmobile infantry is enormous.

The combat mission of this division is to conduct sustained, highly mobile operations to destroy enemy armed forces and control land areas. Its capabilities are many, and the most significant are listed in Figure 2.

FIGURE 2

- Executing combined arms offensive operations
- Conducting mobile defense operations using varying combinations of air cavalry, airmobile and armored forces
- Operating under a wide variety of environmental conditions using specially tailored forces
- Recycling combat forces for immediate re-employment in other areas by vertical entry
- Acting as a covering or screening force on a wide frontage
- Providing a highly efficient and variable combination of combat elements for these roles:
  - Economy of force missions
  - Retrograde operations
  - Rear area security
  - Raids and exploitation
- Highly mobile reserve force capable of rapid employment on short notice.

The experimental division also will serve as the test bed for Project MASSTER's other test programs and will support the testing of the new combat service support system (CS3).

The armored brigade (Figure 3) consisting of a headquarters company, two tank battalions



and one mechanized infantry battalion, was developed to fulfill the classic mission of closing with the enemy by means of fire and maneuver in order to destroy or repel him. The brigade has the capability of conducting operations requiring a high degree of firepower, mobility, armor protection and shock effect.

The maneuver battalions have been organized to enhance rapid cross attachment and subsequent employment as battalion task forces.

The Airmobile brigade (Figure 4) is organized much as was the airmobile brigade of the experimental 11th Air Assault Division in 1964, that is, with only three rifle companies and a combat support company where all battalion mortars are grouped.

The three battalions will be developed with three different anti-tank capabilities. One variation has eight 106-mm recoilless rifles and nine 90-mm recoilless rifles; the second has six TOW and twenty-seven 90-mm rifles; and the third has twenty-one TOW and twenty-seven 90-mm rifles.

The Tri-Cap Division's Air Cavalry Combat Brigade differs materially from the ACCB that will be tested concurrently by Project MASSTER. The latter will have 4,400 men and contain an attack helicopter battalion, an airmobile battalion, an air cavalry squadron, an aviation battalion, plus organic combat support and service support elements. The ACCB for the Tri-Cap division is depicted in Figure 5. This contains a standard tank battalion and a brand new organization in a uniquely structured air cavalry squadron. This squadron has two air cavalry troops and one attack helicopter company.

While it is envisioned that the AH-56A Cheyenne attack helicopter will be the ultimate

continued on page 26

Colonel Selby F. Little, Jr., is Chief of Organization and Equipment Division, Directorate of Organization, CDC Headquarters, at Ft. Belvoir, Va.

FIGURE 5

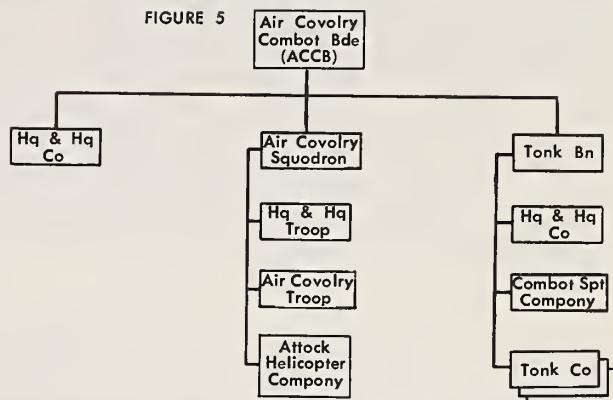


FIGURE 6

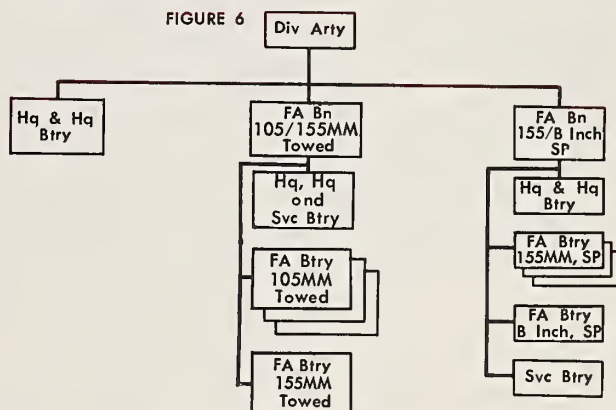
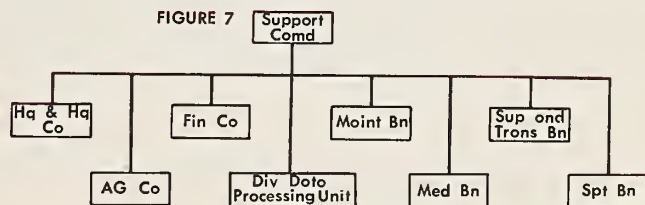


FIGURE 7



# *From Ammo to Zippers*

## *The Sounding Board Listens to the Soldier*

*by Mr. Dwight W. Carr*

Only one-year old, the Army Sounding Board for the Individual Soldier at Ft. Benning, Ga., has already received 667 separate ideas, suggestions, and recommendations for improving the clothing and equipment of the individual soldier.

At the founding of the Board in February 1970, its president, LTC Steve P. Himic of the CDC Infantry Agency, voiced a hope "to find one valid suggestion in every thousand submitted." With seven proposals now formally adopted for immediate implementation, the percentage of acceptance is running better than one out of every hundred.

The four-man Board receives an average of two proposals a day from the field—with the "field" spanning the globe. Contributors have included full colonels as well as brand-new recruits, and they have represented every combat arm and service.

The variety of clothing and equipment items which the no-longer-muted Individual Soldier has spotlighted for change and modification has ranged literally from

A to Z. The Sounding Board has in its *Why-Don't-They* files suggestions on: air pollution, Army regulations and ammunition; bedding, belts, brooms, and boots; canoes, camouflage, and canteens; dog kennels and dog tags; ear muffs, eyeglasses, and entrenching tools; fire starters and fire extinguishers as well as field manuals, fougasse, and fatigues.

In the second drawer you can find goggles, gloves, and the GI Bill; helicopters, hammocks, and hot sauce; insignia and igniting tracers; jeeps, jumpsuits and jockey shorts; kitchen sinks and ketchup bottles; Lyster bags, light bulbs, and lesson plans; plus mottos, matches, mortars, and machineguns.

The last drawer contains night firing and noncommissioned officers; overcoats and overshoes; periscopes, parachutes, and P-38 can openers; not to mention quick-release harnesses and Quartermaster laundries; radars, recruiting, raincoats, and rucksacks; salt, skis, socks, saws, stoves and skirts for armored vehicles; tie tacs and tanks; underwater demolitions, vehicles and Velcro; plus watches, windshield wipers, and WAC blouses; XM203 (grenade launcher under the M16); yards sticks; and—zippers.

Out of that merely representative listing, the fatigue uniform has accounted for 68 comments alone, or some 10 percent of the total received by the Board.

In second place, with 42 comments, are combat boots. The third most frequent subject recommended for rethinking is the combat helmet; and the fourth, surprisingly to some, is insignia (including recommendations on badges, brass, ribbons, patches, and name tapes).

The senders of the seven ideas thus far accepted were awarded between \$100 and \$400 each.

The Board wants *your* idea, too. So why don't you write to the Army Sounding Board, USACDC Infantry Agency, Ft. Benning, Ga. 31905. □

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**Mr. Dwight W. Carr currently is working with  
the CDC Infantry Agency at Ft. Benning, Ga.**





The port side and starboard views of a SMASH-equipped Huey Cobra show the system's nose-mounted forward-looking Sighting System Passive Infrared sensor (right, above) with the chin-mounted XM-28 turret, the wing-mounted XM-35 Vulcan gun and the XM-158 rocket pod, and the radome (right, below) for the system's Moving Target Indicator.

# Project MASSTER Tests Day/Night Fire Control System

In combat, finding the enemy is half the battle. Defeating the enemy is the other half.

Combat operations, such as those in the dense carpet of Vietnam overgrowth, have pointed up a need today to detect and engage the enemy accurately from the air, an enemy either shielded by a green canopy of jungle or covered by a blanket of darkness.





# Personnel: "Quality Is Our Key Consideration"

by SP5 Bill Witcraft



McQuiston

Upon reporting into the Unit Personnel Branch of the Directorate of Personnel, SP5 Thomas Simpson met SP5 Howard Cooper, the enlisted records clerk (top). His records were then examined by Major A.V. Saputo, the Enlisted Personnel Management Officer, to determine where he was best qualified to fit into the CDC family (right).



McQuiston

Combat Developments Command (CDC) must design an Army that is best for its time and adjust or improve that Army as necessary. This effort is accomplished by people. The CDC military-civilian team is dependent on the diverse skills of its personnel resources located throughout the Continental United States and overseas. The herculean task of insuring that each CDC activity has the required personnel skills in sufficient numbers to get the job done is the responsibility of the Directorate of Personnel.

Guided by Colonel John Lycas, this unique organization performs a variety of tasks in support of the CDC family. The Directorate of Personnel is unique because its functions encompass those usually performed by a G1, G2, G3 and Adjutant General in a typical Army division.

The Directorate of Personnel is organized into six divisions—Office of the Director, Office of the Civilian Advisor, the Military Personnel Services Division, the Operations and Security Division, the Administrative Services Division, and the Force Development Division. All of these divisions work together to support command mission objectives with people.

The nerve center of the Directorate is the Military Personnel Services Division, headed by the Deputy Director, Colonel R. E. McCord. Here the right person is put in the slot where individual expertise is needed. The new arrival is interviewed and his personnel records examined before a specific assignment is made. To illustrate the division's battle cry "Keep the

# “We Try to Look Out For A Soldier’s Welfare ... During His Entire Tour With CDC.”

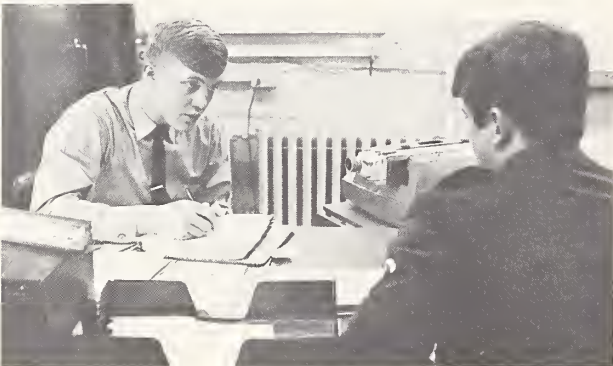


McQuiston

SP5 Simpson is next interviewed by Major A.O. Martin, Chief of Mail and Distribution, where SP5 Simpson is scheduled to work (top). His security clearance is then checked and updated by Miss M. Woodburn (center) and his training record is checked by SP5 Stafford of the Operations/Training Section.



McQuiston



McQuiston

Personal in Personnel”, every effort is made to accommodate an individual’s preference in accordance with CDC requirements.

Once the individual’s assignment is made, his duties will be explained and, as Major A. V. Saputo, Enlisted Personnel Management and Operations Branch, explained, “We try to look out for a soldier’s welfare, not only when he is initially assigned, but during his entire tour with CDC.”

An assignment to CDC is not just a happy coincidence but the result of a carefully calculated criteria based on many factors. Education, attitude and experience are some of the requirements, but as Col. Lycas says, “Quality is always our key consideration.”

Diversification of available talent is best illustrated in the Administrative Services Division. Here talented artists, offset printers, mail specialists, clerks, librarians and administration specialists function together in a multiplicity of complex tasks. This division is broken down into four branches—Graphics Art, Headquarters Library, Publications and Orders, and Mail Distribution.

According to Lieutenant Colonel N. M. Warner, Chief, Administrative Services Division, the Publications and Orders Branch reproduced more than nine million printed sheets of paper during Fiscal Year 1970. An average of 8,000 pieces of paperwork are handled daily by the Mail and Distribution Branch.

Graphic Art support comes from Mr. D. J. Barney and his crew who produce art work



for illustrations, displays, briefing slides for the Headquarters complex and other CDC organizations located at Ft. Belvoir.

Mr. J. D. Lawhn is CDC's Civilian Personnel Advisor. CDC does not have a civilian personnel officer but depends on post civilian personnel officers wherever a CDC element is located for full civilian employee program support. The principal task of Mr. Lawhn and his division's staff is to coordinate the management of CDC's civilian work force through contact with CDC commanders and their servicing civilian personnel officers.

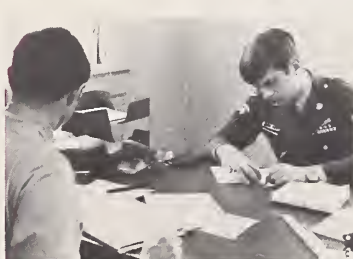
The Operations and Security Division staff schedules mandatory training for CDC personnel, processes applications for service school attendance, and conducts the command security program. The Division performs a host of functions usually accomplished by the G2 and the G3 of an organizational staff.

The Division's two branches—Plans, Operations and Training and Security—perform those duties that their designations imply. Security is big business in CDC. The Security Branch is responsible for personnel security, security of military information, industrial security and the foreign liaison and release of information to foreign countries.

According to Lieutenant Colonel R. P. Kelly, Operations and Security Officer for the Directorate of Personnel, "Probably the most important of these four functions is the foreign liaison and release of information program. There are some 55 foreign officers accredited to



McQuiston



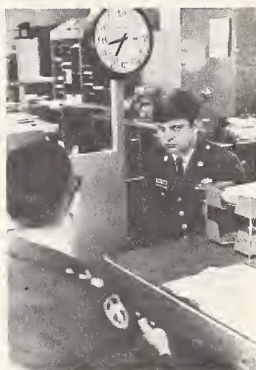
**After it has been determined where SP5 Simpson would best be qualified in CDC, his records are brought up to date. According to SP5 Cooper, "This could be one of the most important processes in personnel. If a man's records are incorrect we have no way of knowing, for example, that a man is eligible for promotion."**

# All CDC Activities Are Charted... Which Provides Ready Information On the Organization of Various CDC Units



McQuiston

**SP5 Simpson, after an initial interview, has another interview with Major Martin. He will learn what is expected of him and what his duties will be. This whole process, from signing in and reporting to the enlisted personnel records clerk to the above interview with Major Martin, was all accomplished within the Directorate of Personnel.**



McQuiston

the command and many bilateral and multi-lateral international agreements concerning combat developments.”

“Personnel Security activities include the security orientation of new arrivals, initiation of background investigations, processing of clearance requests, and issuance of security clearances. Every man assigned to CDC must have a clearance.”

People or manpower is CDC’s most important asset and the Force Development Division sees to it that CDC gets every nickel’s worth from its manpower resources. All CDC activities are charted on current Tables of Distributions and Allowances which provides ready information on the organization of various CDC units, their missions, and the equipment or manpower resources required to accomplish their missions.

The mission itself comes under close scrutiny when Lieutenant Colonel R. C. Jones and his survey team take a hard look at how a CDC organization is getting the job done. Staffing guides and other survey techniques offer indicators on just how much mileage a commander is getting out of his people in mission performance tasks. A manpower utilization survey is conducted periodically for each CDC organization.

Just as the mission of CDC dictates that it keeps pace with the combat developments process, the Directorate of Personnel must keep pace with ever changing personnel requirements. Because it is people that make this process possible so the final results can be delivered to the customer—the soldier of today and tomorrow. □





# Awards and Decorations

## LEGION OF MERIT

### COLONEL

BEEM, Samuel M.  
BERGER, Casper  
DUBIA, Christian F.  
HAMILTON, Claud S.  
RING, Alfred C.

### LIEUTENANT COLONEL

HYMERS, Charles S.  
RIGGSBY, Raymond M.  
SATTERFIELD, James R.  
SMALLWOOD, Grady L.  
STONE, Robert A.  
WOODS, Thomas G.

CHIEF WARRANT OFFICER, W2  
KURTZ, Thomas W.

## MERITORIOUS SERVICE MEDAL

### COLONEL

HUGHES, Richard W.

### LIEUTENANT COLONEL

BUELL, Leonard K.  
CUMMINGS, William T.  
DINWIDDIE, Richard W.  
LAMBERT, Clifford V.  
LAROCHELLE, Romeo J.  
MAGRUDER, Lewis F.  
SMITH, Frank B.  
SILVERNALE, Douglas J.  
STIPETIC, John J.  
WILLIAMS, Cardinal R.

### MAJOR

BISHOP, Wilbur C.  
DOWNING, David A.  
HEIDEN, Elden W.  
MILLER, Kenneth A.  
RHODES, Remus C.  
UMHOFER, Michael P.

CHIEF WARRANT OFFICER, W4  
SCHNIEDER, Edward G.

### MASTER SERGEANT

GAUNT, John W. Sr.  
LANCASTER, James H.  
MESSMER, Jerome J.

FIRST SERGEANT  
SUTTON, Elmer

## ARMY COMMENDATION MEDAL

### LIEUTENANT COLONEL

PIERCE, Leon A.  
YEARBY, Joe S. (1st OLC)  
YOUNG, Gregor T.

### MAJOR

KING, Jerry M.

### CAPTAIN

DECKER, Richard E. Sr.  
(2nd OLC)  
GRIMMETT, William R.

### FIRST LIEUTENANT

GADKOWSKI, Robert S.  
KRAMER, Robert K.  
KUNKLE, Donald W.  
McELROY, James R.  
RODERICK, Richard C.

### SECOND LIEUTENANT

CLAPPER, John III

CHIEF WARRANT OFFICER W2  
HUMPHREY, John R. (2nd OLC)

### SERGEANT FIRST CLASS

FAUVERGUE, Valice J.  
PERRIS, James A.  
REED, Freddie J.

### SPECIALIST SEVEN

BROWN, Fredrick L. (1st OLC)

### STAFF SERGEANT

SPRINGER, Larry E.

### SERGEANT

FLEMMING, Thomas M.

### SPECIALIST FIVE

TIDWELL, Gary G.  
WOLFE, David A.

### SPECIALIST FOUR

BODHOLDT, David L.  
LOWE, James D.

## Triple Threat continued

weapons system for these organizations, the division will use AH-1G Cobra and UH-1B/C Huey gunships as the interim weapons systems.

The Tri-Cap's ACCB is structured so it can easily be tailored as a combined arms team composed of air and ground cavalry, attack helicopter, airmobile infantry and armor units. Its organization also reflects the realities that the division, although experimental and conceptual, has a concurrent real-world mission and commitment.

Because Project MASSTER is involved in both ACCB tests, it is anticipated that there will be considerable cross-pollination as the experiments move down the road. In point of fact, one of the jobs of the test division is to provide troops and assets to MASSTER to support the evaluation of the big ACCB.

The armored cavalry squadron of the division will have the traditional mission of a cavalry unit to provide reconnaissance and security. The Tri-Cap's squadron is smaller than the standard armored cavalry squadron in that it has one less armored cavalry troop. Its principal combat vehicle is the Sheridan tank, with 18 authorized for the squadron. Its air cavalry troop will have nine scout birds and nine Cobras plus seven lift helicopters for its infantry platoon.

The division's combat support units all are organized with a triple-capability mission.

The signal battalion has three operating companies—a command operations company; a signal support operations company; and a forward communications company. This latter unit is designed to provide forward area signal centers in the three brigade areas to include radio-teletype terminals and radio-wire integration facilities. The battalion, while heavier than the airmobile division signal battalion, is substantially lighter and more transportable than the signal unit of the standard armor battalion.

The engineer battalion has six companies to perform its engineer support tasks and its organization again mirrors the overall divisional organization. Its bridge company is equipped with Class 60 float bridging and Class 60 fixed Armored Vehicle Launched Bridging.

Two of the battalion's companies are configured exactly like those supporting current mechanized or armored divisions. Two other companies are designated airmobile and are designed to support either the divisions airmobile or air cavalry combat brigade.

The air mobility of the division is provided by its combat aviation battalion. It has three assault helicopter companies equipped with UH-1H Huey helicopters. Each company will have an organic gunship platoon to provide armed aerial escort for the lift platoons.

The battalion also has an assault support helicopter company equipped with CH-47 Chinook helicopters. These aircraft will be the prime movers of the airmobile artillery units as well as providing cargo lift for the entire division.

The general support company will provide command and control aircraft for the division and, along with the headquarters company, provide instrumented airfields with terminal flight facilities. The battalion also includes a pathfinder platoon to provide visual and electronics navigational assistance for the assault and assault support aviation units.

Field artillery support for the Tri-Cap division is provided by an organization that differs from any division artillery structure now on the books. (See Figure 6.) The composite towed battalion will provide the support for the airmobile brigade. The 105-mm batteries are dependent on helicopter lift for mobility.

The composite self-propelled battalion will provide artillery support for the armored brigade. There is no field artillery support provided specifically for the ACCB since fire support for that unit normally would be provided by organic attack helicopters. However, should maneuver elements of the other two brigades be attached to the ACCB for combined operations, it is envisaged that appropriate direct support artillery would be included in the task organization.

The support command depicted in Figure 7 is the major combat service support element of the division. Its structure is very similar to that of other divisions with two exceptions—a data processing unit which has been added to provide for the implementation of the CS<sub>3</sub> con-

**continued**



cept, and a support battalion designed to provide logistical support to the ACCB during independent operations.

The maintenance battalion supports all elements of the division except the ACCB. A heavy maintenance company provides support for the division base, while a forward support company provides maintenance support for the armor and airmobile brigades. The aircraft maintenance company has a direct support maintenance responsibility for all divisional aircraft except those assigned to the ACCB.

The supply and transport battalion, like the maintenance battalion, supports only the airmobile and armored brigades. It includes an aerial equipment support capability that will support pathfinder operations as well as rig supplies and equipment for airdrop or lift by helicopter.

The medical battalion will operate four divisional clearing stations and will provide both ground and aerial evacuation of casualties from unit level medical facilities.

The support battalion is designed to accompany the ACCB during independent operations and contains most of the capabilities found in the maintenance and S&T battalions. Its maintenance company has both a conventional and aircraft maintenance capability.

This, then, is but a cursory look at the Tri-Cap division. To come up with this organization, CDC developed 27 new tables of organization and equipment during the latter part of 1970. The development of these TO&Es, plus the continuing efforts by this command in writing test directives and training texts is all part of Combat Developments Command's continuing efforts to keep the Army in the field modern . . . flexible . . . mobile. □

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## Project MASSTER *continued*

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carry a pair of Gatling-type 7.62mm mini-guns and/or a pair of 40mm grenade launchers; the port side, wing-mounted XM-35 Gatling-type 20mm Vulcan cannon; and the XM-158 rocket pod (mounted directly outside the XM-35 gun on the port side), which fires 2.75-inch folding-fin aerial rockets.

The inertially-stabilized SSPI allows the pilot and copilot/gunner to spot and track the target

—detected by the MTI radar—on a high-resolution, rectangular screen similar to a small television screen. The SSPI also provides a reticle for directing weapons fire in both wide and narrow fields of view.

The copilot/gunner's cockpit contains the circular MTI display, which features radar-type ground mapping and other target detection devices. The AN/APQ-137B radar can be used independently for aiming the weapons. Controls are housed in the cockpit for MTI range selection, supplied by the ground checkout control panel, which also tells the copilot which weapons are within firing range. The radar has a maximum range of about 11 miles and can spot targets moving at speeds of from two to 20 miles per hour.

The pilot's cockpit holds—in addition to an SSPI display, a range information panel, a pilot's control panel, a radar altimeter indicator, and standard flight instruments—a mode panel so that the pilot can pick any one of three primary modes of operation with submodes and pilot override control mode.

In a typical nighttime combat mission, the copilot first spots a target on his MTI display. The pilot and copilot can then close in on the target by merely keeping the radar crosshair centered on the target blip. This allows the radar to measure range to the target and an on-board computer, part of the ICU, calculates weapons ballistics information. The SSPI, via the MTI sensor, can also be triggered for identification of the target at either a 1:1 or 4:1 power of magnification.

When the aircraft has closed to within firing range of the folding-fin aerial rockets in the XM-158 pod, a panel light glows to signal a weapons launch capability. Additional panel lights flash on as the aircraft draws near enough to the target to launch other weapons.

Advanced instrumentation for target detection such as the SMASH system may enable combat forces, both in the air and on the ground, to more readily detect and engage the enemy. Moreover, CDC will continue to analyze and evaluate future detection systems, as well as a great many other areas which ultimately affect the soldier in the field, in order to make the Army of tomorrow one of increased accuracy and efficiency. □



## The Forum

Dear Arrowhead,

Congratulations on a very informative publication in your January issue. The article "Field Manual Offensive Air: Maintenance" struck a nerve, and the objectives are certainly noteworthy. The final products will be great assets to those forgotten responsible individuals in the maintenance field who maintain the U.S. Army equipment.

The objective of "how-to-do-it", relating to suggestions on how to use field expedients to improve operation, is just great. Over the years a tremendous amount of field expedients have been accomplished through necessity, but unfortunately many of them were never recorded so as to be passed on to the maintenance personnel who are now carrying the load. It is realized that this task will be long and tedious, but the results will be satisfying and so well worth the effort.

Hats off to a worthy task! "Field Manual Offensive Aim: Maintenance" will be victorious in meeting its objectives. To spread the word, it is recommended that copies of the article be distributed to all of the National Maintenance Points under the U.S. Army Materiel Command for distribution to their maintenance organizations.

James P. Webster  
Chief, Command Support Division  
U.S. Army Mobility Equipment  
Command  
St. Louis, Mo.

Dear Arrowhead,

What relationship is there between  
Combat Developments Command

and the Army Materiel Command?  
I've heard of both of them used in  
conjunction with each other.

L.H.  
Ft. Myer, Va.

Yes, you may have heard both  
Combat Developments Command  
(CDC) and Army Materiel Com-  
mand (AMC) used in the same light,  
but it should be noted that they have  
separate missions.

Briefly it could be said that CDC  
is charged with the mission of plan-  
ning for the Army's requirements  
at the present and in the future.  
CDC accomplishes this task by  
answering three vital questions:  
How can the Army best fight? How  
can the Army be best equipped?  
How can the Army be best orga-  
nized? Meanwhile, AMC is primarily  
responsible for research and devel-  
opment along with test and evalua-  
tion of new equipment only.

In other words, CDC formulates  
the ideas (intangibles) while AMC  
is concerned with the hardwares  
(tangibles) for the Army. Both  
commands must ensure that our  
present and future Army is pre-  
pared to meet the enemy threat be  
it conceptual or materiel. This is  
why you may have heard them used  
in conjunction with each other.

ARROWHEAD

Dear Arrowhead,

Recently I've heard a lot in the  
news about TRI-CAP. What is TRI-  
CAP and what does it stand for?

R.H.  
Ft. Hood, Tex.

You hit the jackpot! A TRI-CAP  
(Triple Capability—Armor/Airmo-  
bile Infantry/Air Cavalry) story  
appears on page 14 of this issue.

ARROWHEAD

Dear Arrowhead,

There have been numerous in-  
quiries from Eighth Army and  
ROKA R&D Command staff mem-  
bers seeking information on the "Ma-  
teriel Need" concept. Your article in  
"Around the World With CDC" of  
February 1971 referenced a previous  
article on the subject which had  
been published in the November 1970  
issue. Request three (3) copies of  
the November 1970 issue of Arrow-  
head be sent to this office.

P.A.  
Seoul, Korea

Thank you for your interest on  
the "Materiel Need" story. Three  
copies were mailed to you.

ARROWHEAD

*"The Forum" is new, as is the  
style of the ARROWHEAD. We  
have devoted this page to you, the  
reader, and we hope you will use it.  
From time to time we have received  
questions and comments from our  
readers, and, because of the limited  
space of past issues, either had to  
reply by personal letter or by the  
telephone. We felt that this was not  
the best way. Some of our readers  
had come up with questions that  
we felt were of importance to a  
majority of our readers—hence,  
"The Forum."*

*Send your letters and/or  
comments to the ARROWHEAD,  
Combat Developments Command  
Information Office, Ft. Belvoir,  
Virginia 22060.*

ARROWHEAD May 1971



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## Small Infantry Units continued

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Another instrument used by the SIAF was the Portable Seismic Intrusion Device (PSID). The kit contains four probes (transmitters) and a small monitor. The probes can be set to pick up vibrations caused by movement up to 30 meters from its location. Each probe sends back a different signal. The monitor is described as having a line of sight range, thus allowing the SIAF to remain at a secure distance.

After seven days in the enemy-infested battlefield, the patrol was extracted by helicopter for intensive brief-backs. Here, everything about the patrol—including details such as how much water was consumed by each man—was recorded.

One man who completed the project, Captain Roger W. Owens, noted, "Most of our movements were at night because of the rather open terrain. It was a good exercise except that we were on orders to avoid contact with the aggressors. It's hard to be fully armed and watch the enemy go by."

"SIAF is a good system," he pointed out, "even though it's alien to our normal train of thoughts."

Staff Sergeant Thomas E. Powell, who participated in the Son Tay prison camp raid in North Vietnam last November, was a radio-telephone operator during the SIAF experiment. "The pre-training was as physically demanding as anything I've ever done," commented Powell. "And in the end those guys checked everything."

But the full story lies in the realization of the systems approach to the SIAF operation. An element as small as these six-man patrols highly equipped with sophisticated equipment can be inserted into a hostile area occupied by a more superior force and create havoc. This havoc could come in the form of an armada of fighter bombers guided by the silent laser or ground-launched missiles fired from—seemingly—nowhere. The enemy's every movement could also be tracked with devices such as the PSID.

However, as Major Matchett points out, "We have equipment that details a foreign presence,

but it might not be a human presence. If the equipment were able to detail human presence, no computer could tell if it were friend or foe."

Thus, the individual soldier is still the key to success or failure. And this, together with the continuing research being undertaken to make the soldier a better trained and better equipped mainstay of today's Army, indeed portends a "quiet revolution" in small unit combat operations. □

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## Spring Training continued

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sponsibility and the challenge of contributing in the fullest possible measure to the progress and success of the enterprise.

Early in February the council met with LtGen. Norton and presented a study on the utilization of junior officer within CDC. They recommended that the mission of CDC be reviewed with the specific purpose of identifying challenging positions that could be filled with junior officers.

As the result of this meeting, a survey was conducted to determine the number of young officers that could be profitably used within the headquarters. Their use was considered as partial substitution for some field grade positions and civilian employee shortages.

As the result of this survey many positions currently vacant can be filled by a junior officer, where he can use his civilian or military education or experience and grow with the CDC family.

Not to be satisfied with their progress as a "working" Junior Officer Council, last month the council recommended that junior officers within CDC visit ROTC installations and discuss the Army and Combat Developments Command with ROTC students. The JOC believes that such visits will promote a higher volunteer rate since the students will realize the Army is a highly diversified corporate structure with attractive job positions.

The Junior Officer Council at Combat Developments Command is following the "game plan" for a professional Army by applying the Modern Volunteer Army Concept. They hope to find the talent for the coaches at CDC who will add the basic ingredients to build a professional team. □



## Spot Reports

### SAILS

FT. EUSTIS, Va. . . . The Combat Developments Command Transportation Agency, (CDCTA), located here, is participating in a joint study, sponsored by Department of The Army, Deputy Chief of Staff for Logistics (DA, DCSLOG), to achieve Army-wide standardization in the logistics systems.

The project, known as SAILS (Standard Army Intermediate Level System), addresses those levels of operation and management between the wholesale level and the direct support and using unit level.

Insofar as transportation is concerned, the intermediate level is further stratified into levels A(-), A, and B. In the Continental United States (CONUS) these levels are equated to the Continental Army Command (CONARC) and the armies, Military Traffic Management and Terminal Service (MTMTS) and the management activities at installations, and the mode and terminal operators, respectively. Overseas, the theater army and theater army support command become the A(-) level, the transportation command and corps support command become the A level, and the mode and terminal operators make up the B level activities.

The DA, DCSLOG, is primarily responsible for developing the A(-) level of SAILS, and CDC has the primary responsibility for the A and B levels. In addition to DCSLOG and CDC, active participants will include the Comptroller of the Army, CONARC, Army Materiel Command, US Army Computer Systems Command, MTMTS, major com-

mands, and the US Army Logistics Doctrine, Systems and Readiness Agency, a class II activity of DA, DCSLOG.

In its initial stage SAILS will address the supply, maintenance, and transportation functions of the logistic system along with attendant financial management. Later, the developed programs and procedures will be integrated with related personnel, medical, engineering, and financial programs. The transportation portion of SAILS will emphasize rapid response and flexibility, taking maximum advantage of the latest technology in airlift, containerization, other improved transport procedures, and automated data systems.

### Commanders Meet



FT. BELVOIR, Va. . . . "You are the team that can solve the imponderables of how the Army can fight today and tomorrow," Lieutenant General John Norton told 46 conferees at the Combat Developments Command (CDC) semi-an-

nual commander's conference held here.

The commanding general of CDC opened the day-and-a-half conference 16 March with a brief on his command reorganization objectives and a report on his recent fact-finding trip to U.S. Army Europe.

The conference agenda was jammed with top priority subjects, covering most of the major phases of land combat. Each formal presentation was followed by spirited discussion.

Among the subjects covered or updated was the Personnel Offensive, Phase 1; the Combat Service Support System; the conclusions of the several top drawer studies; and the test program for the Air Cavalry Combat Brigade and the Tri-Cap Division.

In closing the conference, General Norton told the conferees they had a tremendous responsibility because "the Army depends on us to really see ahead. We have a privileged position to get out in front and provide leadership for the Army in the combat developments area."

"And," he concluded, "this is the team that can do it."

### Fast Action

FT. ORD, Calif. . . . A wrecked car, spotted from the air, quickly transformed a routine training flight into a rescue mission for three fliers of the Combat Developments Command Experimentation Command (CDCEC).

Colonel Raymond G. Lehman, Chief of CDCEC's Project Team IV and CW2 John Waschak of CD-



CEC's Aviation Section, were flying a UH-1H Huey helicopter on the east side of Ft. Ord when crew chief Specialist Five Pete O. Terronez Jr., also of CDCEC's Aviation Section, sighted an automobile accident below.

Landing to see if they could render assistance, they learned from the California Highway Patrol already on the scene that the eastbound car had left the road and plunged down an embankment.

Since the driver was injured and a military dependent, the CDCEC fliers placed her in the helicopter and evacuated her to the Ft. Ord Army Hospital where she was treated for injuries and released.

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## Economy Champ

FT. BELVOIR, Va. . . . With champs turning up in just about everything these days, the Army has come up with an "Economy Champion of the Year." Mr. Lionel P. Hernholm, Equipment Analyst at the Combat Developments Command (CDC) Headquarters, received that title and a cash award from Secretary of the Army Stanley R. Resor in Pentagon ceremonies recently.

Civilian-employee Hernholm, a Richmond, Va., native, is in the Authorization Division of CDC's Organization Directorate which helps determine the Tables of Organization and Equipment for the Army today and in the future.

In looking at the TOW anti-tank missile, the 47-year-old analyst initiated a cost reduction of more than \$6 million by eliminating back-up battery chargers at the battalion level. In addition to the cash savings, his investigation resulted in the improved distribution of chargers in the TOW missile's maintenance support system.

Hernholm, who has been with Army's unique "Thinking Command" since 1962, has worked his way up to championship status with several cost-reduction checks and titles. One in 1969 was for suggesting a \$45 fiberglass substitute for a \$3900 electronic device for training

gunners on the DRAGON anti-tank missile. This saved the government some \$15 million, and brought him a \$1400 check. The CDC equipment expert also received a citation from Vice President Spiro T. Agnew in 1969 for his work on TOW.

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## New Commander



FT. LEAVENWORTH, Kan. . . . Combat Developments Command Institute of Combined Arms and Support (ICAS) has a new commanding general who is still getting a "feel" for his new position, but if first impressions are an indication, he's going to enjoy his stay at Ft. Leavenworth.

Major General John J. Hennessey assumed command of ICAS, Ft. Leavenworth and the Command and General Staff College on 1 March, Replacing Major General John H. Hay who is now commanding general of the XVIII Airborne Corps, Ft. Bragg, North Carolina.

MajGen. Hennessey has been at Ft. Leavenworth before—he attended CGSC as a major in 1955—and on the basis of his previous tour considers Ft. Leavenworth as "probably the best post in the United States Army."

He was last stationed in Vietnam where he commanded the 101st Airborne Division (Airmobile). The majority of his first month has been spent receiving briefings from ICAS, CGSC, and Ft. Leavenworth person-

nel. He also plans to visit CDC headquarters and other CDC elements to receive additional briefings in the months to come.

This is MajGen. Hennessey's first assignment with CDC. Most of his service has been on the east coast or overseas. He was with the 70th Division during World War II, and has served in Germany, Korea, twice in Vietnam, as well as at the Pentagon, and Ft. Benning, Ft. Bragg and Ft. Leonard Wood.

He received an appointment to the U.S. Military Academy in 1941 after having completed three years at St. Mary's College, Winona, Minnesota. He was commissioned as a second lieutenant in the infantry in June of 1944. In addition to attending CGSC, he attended the Army War College in 1959-60.

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## Medical Displays

FT. SAM HOUSTON, Texas. . . . A look into the Army Medical Departments future and current operations in the combat development area was shown during the San Antonio Livestock Show.

The Medical Service Agency's display presented the Combat Developments Command (CDC) mission and nation-wide organization. Lighted transparencies showed examples of weapons systems, aircraft, clothing, and other materiel of various types developed through CDC efforts.

Approximately 100,000 people visited the military tent during the show.

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## German CofS Visits

FT. ORD, Calif. . . . Lieutenant General Albert Schnez, Inspector of the Army of the Federal Republic of Germany, visited Combat Developments Command Experimentation Command (CDCEC) during his tour of selected Posts in the United States—a visit arranged for him by Department of Army. He was hosted here by Brigadier General Elmer R. Ochs, CDCEC's commanding general.

## Spot Reports

continued

On his arrival at CDCEC, the German General was greeted with full military honors, with Captain Corwyn Cortez of CDCEC's Support Battalion, acting as Honor Guard commander. LtGen. Schnez was invited to review the troops by Brig Gen. Ochs and did so, accompanied by the CDCEC commander and Ft. Ord's commander, Major General Phillip B. Davidson, Jr., distinguished guest at the ceremonies.

Following the ceremonies, discussions with both the Ft. Ord and the CDCEC commanding generals were held with LtGen. Schnez; and special briefings on CDCEC's mission and activities were presented for his information.

### Happy Story



FT. ORD, Calif. . . . It's always nice to report a story with a happy ending—in this case, a school and a sign being reunited and living happily ever after. The story concerns a sign which once adorned the Captain Cooper School on Highway 1 at Big Sur. It had been stolen from them and the place just hadn't been the same. The school had given up hope in recovering it back.

But the lost item has been found and its finding has solved also a rather intriguing puzzle for a young officer of the Army Combat Devel-

opments Command Experimentation Command. (CDCEC).

When Lieutenant Frank Loge of CDCEC's Comptroller's Office, which is located at Ft. Ord, was assigned here in December of 1969, he and his wife Sharon moved into government quarters on the Post. His next door neighbor at that time was a Captain Cooper, whose name by coincidence was the same as the early Big Sur settler for whom the school was named. The Loges', being newcomers, had never heard of the original settler nor the school named for him. So when he noticed in his backyard a large carved sign, saying "Captain Cooper School" after the Coopers had departed the post, he assumed that it had belonged to them, had been forgotten and would probably be reclaimed later. So he just left it there.

But what his neighbor had been doing with a "school" and what kind, continued to puzzle him. Some kind of joke, maybe.

Well, the pieces of the puzzle all came together when he read a feature in the Monterey Herald, showing the activities of children at a Captain Cooper School at Big Sur which mentioned the fact that their sign was missing—and lamented.

True, in the absence of their original sign, the school had another sign carved and put up, which leaves them now with two signs. But—it won't hurt to have a spare.

### Soldier/Teacher

FT. BELVOIR, Va. . . . Today's college students and the Army may have their differences, but a soldier who moonlights with the students in his spare time is helping to bridge that gap. Colonel Charles T. Caprino, of Combat Developments Command (CDC), teaches evening classes to graduate students at American University.

The Chief of CDC's Automatic Data processing and Management Directorate, Colonel Caprino, recently reversed classroom scenes for the students. At ADP/MIS headquarters, the "soldier-teacher" as-

sisted by five of his company grade officers, conducted a three hour orientation on the activities and functions of his systems. The unusual class was open to all interested students and teachers alike, and included instruction in CDC's management information systems, and tactical data systems developed for the Army in the field.

Col. Caprino, who is working on his MS Degree in Management and Computer Science from George Washington University is in his second year of teaching at American University.

### Civilian Awards

FT. LEE, Va. . . . Five civilian employees of the Combat Developments Command Combat Service Support Group (CSSG) were recently presented awards in recognition of their outstanding services. Brigadier General Ross R. Condit, Jr., Commanding General, CSSG, presented the Outstanding Performance Award to his secretary, Miss Marguerite W. Widdop, and to Mrs. Mildred R. Gordon, Secretary to the Deputy Commander/Chief of Staff.

Mrs. Eleanor M. Blick was awarded a Quality Step Increase for her performance as Secretary, Personnel and Administrative Services Division, Directorate of Personnel, Program and Budget. Lieutenant Colonel Charles E. Click, Director of PP&B, made the presentation.

Colonel Beverly M. Bzdek, Director of Organization, Doctrinal Publications and Evaluation, presented a Quality Step Increase to Mr. William W. Shoup, in recognition of his accomplishments as a Military Analyst in the Doctrinal Publications Division.

Colonel Neil M. Chapin, Director of Doctrine, presented the Department of the Army Certificate of Achievement to Mrs. Myrtle C. Lichtenberger who is an Editorial Clerk and Stenographer in the Directorate of Doctrine. □





## For God and Country

*Our light affliction, which is but for a moment, worketh for us a far more exceeding and eternal weight of glory; while we look not at the things which are seen, but at the things which are not seen: for the things which are seen are temporal; but the things which are not seen are eternal.*

*II Cor. 4: 17-18*

Have you an X-ray vision? Can you not only see the things before you, but also see them in relation to all behind them?

A drawing "in perspective" represents things as they appear to the eye with objects in right relationship. So tasks should be seen set in their whole pattern, revealing relative values and importance. The order-of-the-day, the assignment, or the objective, is related to the entire campaign, and to the final purpose.

"What are you doing?" was asked of three laborers working together. "Carrying mortar," answered the first; "Earning four dollars a day," the second; "Building a cathedral," the third.

So blood, sweat, and tears are for all; but for some they are discerned against a background

of humanity freed, civilization restored. God's will done. They are not interested in merely stopping the enemy, or removing barriers; they do both that others may go on and up into the fullness of the good life. So "things seen" are related to the "unseen," to that better day of faith, imagination, and determination.

Some merely obey orders. Others have, back of their obedience, the wisdom of what it is all about, and serve with conviction and consecration. In the ranks of the latter are found those who receive medals and are promoted to higher rank. Most folks see only God's acts or deeds; while men like Moses, discerning His ways or purposes, become leaders.

### PRAYER

O Lord, keep clean and clear my vision; enable me to see through the dust and fog of the moment all things as Thou dost see them, and never to lose sight of the eternal. Amen.

CHARLES W. FLINT, Bishop, Washington, D.C., Area, Methodist

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